

Title (en)
Pre-chamber of internal combustion engine

Title (de)
Vorkammer einer Brennkraftmaschine

Title (fr)
Préchambre de moteur à combustion interne

Publication
EP 2998537 A1 20160323 (EN)

Application
EP 14185577 A 20140919

Priority
EP 14185577 A 20140919

Abstract (en)
The present disclosure relates to a pre-chamber assembly (20) for an internal combustion engine, and a related method. The pre-chamber assembly (20) may comprise a main pre-chamber body (22) including a main pre-chamber (36), and an auxiliary pre-chamber body (32). The auxiliary pre-chamber body (32) may comprise an auxiliary pre-chamber (42) and at least one flow transfer passage (44) fluidly connecting the main pre-chamber (36) and the auxiliary pre-chamber (42). The auxiliary pre-chamber body (32) may further comprise a fuel supply channel (46) opening in the auxiliary pre-chamber (42). Thus, if combusting lean fuel air mixtures, the pre-chamber assembly (20) may facilitate a high ignitability while generating a small amount of nitrogen oxides only.

IPC 8 full level
F02B 19/10 (2006.01); **H01T 13/54** (2006.01)

CPC (source: EP)
F02B 19/1095 (2013.01); **F02B 19/12** (2013.01); **F02P 13/00** (2013.01); **H01T 13/08** (2013.01); **H01T 13/54** (2013.01); **Y02T 10/12** (2013.01)

Citation (applicant)
US 5024193 A 19910618 - GRAZE JR RUSSELL R [US]

Citation (search report)
• [XA] EP 2713024 A1 20140402 - GE JENBACHER GMBH & CO OG [AT]
• [XA] JP H07133722 A 19950523 - NAKAGAWA MINORU
• [XA] DE 102008018482 A1 20091015 - MAN DIESEL SE [DE]
• [XA] FR 2441056 A1 19800606 - LAMPARD ROBERT
• [A] US 7100567 B1 20060905 - BAILEY BRETT [US], et al

Cited by
CN112639264A; CN114391061A; FR3107305A1; CN113944541A; JP2022019616A; US11970965B2; WO2021047790A1; WO2022011400A1; DE102023102643A1; US11994058B2; WO2017064355A1; WO2021160944A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2998537 A1 20160323

DOCDB simple family (application)
EP 14185577 A 20140919